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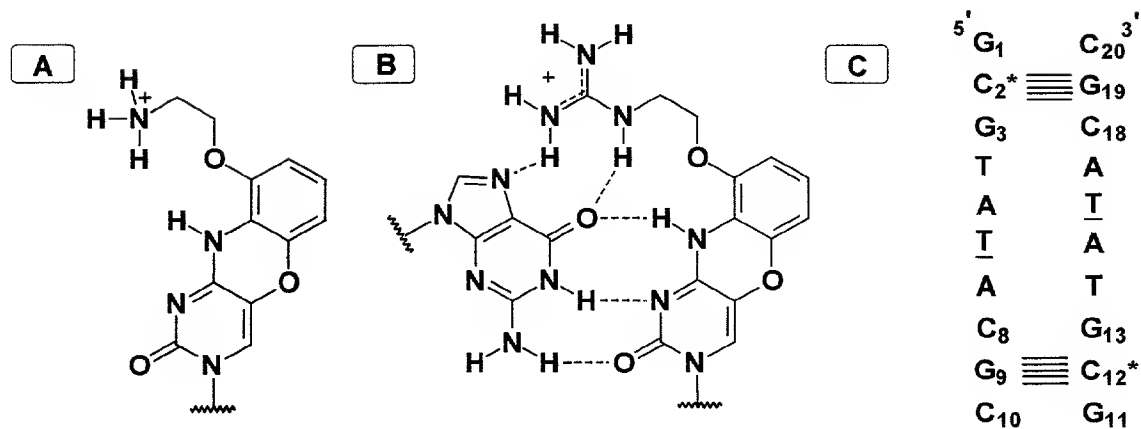


Figure 1. Structure of the tricyclic cytosine analog G-clamp⁵ (A), of its extended analog guanyl G-clamp hybridized to complementary guanosine (B), and of the palindromic decamer duplex crystallized for this study (C). The five hydrogen bonds formed between C* and G are indicated by horizontal lines (C* = guanyl G-clamp, T = 2'-O-MOE-T).

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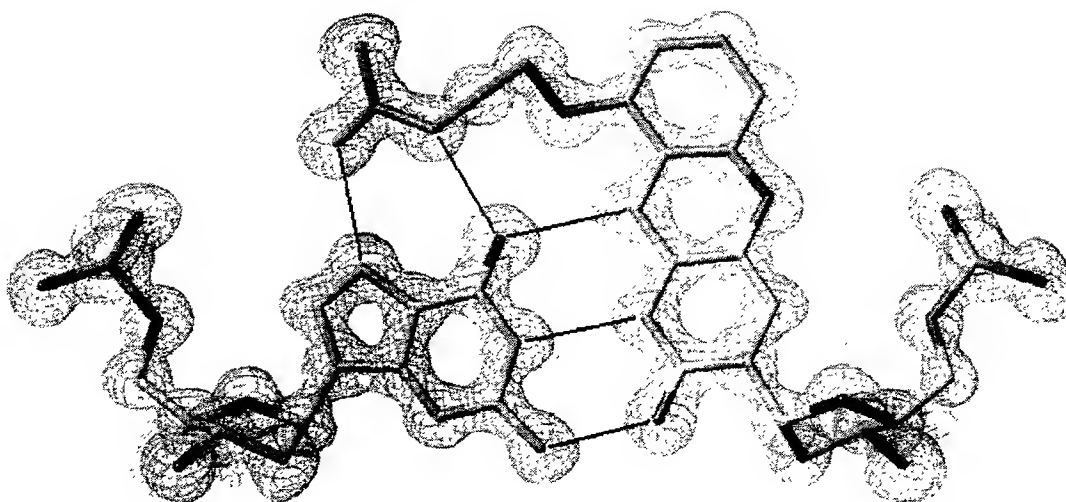


Figure 2. Fourier ($2F_o - F_c$) sum electron density map (contoured at 1.25σ) around C12* and G9 confirming formation of five hydrogen bonds (indicated by thin solid lines with distances shown in Å).

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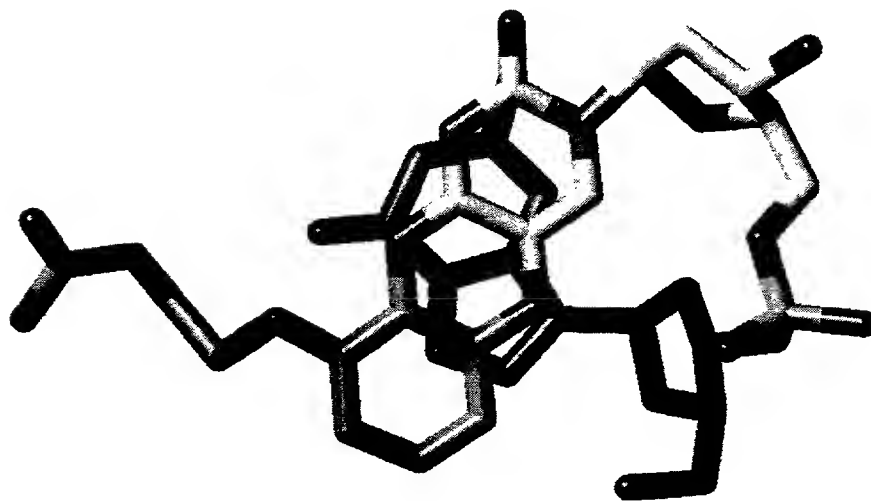


Figure 3. Stacking between G1 and C2*, viewed approximately along the vertical to the phenoxazine rings. Carbon atoms of G1 are shown in magenta, carbon atoms of the cytosine core of C2* are shown in yellow and the remainder of the carbons are in green.

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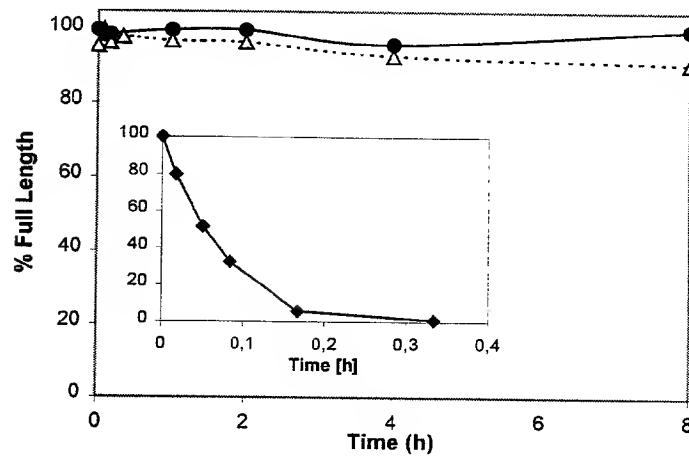


Figure 4

Figure 4. Degradation of ONs **157** (open triangles) and **158** (closed circles) as a function of incubation time and compared to an unmodified control ON **159** (closed diamonds, insert) determined by CGE analysis.

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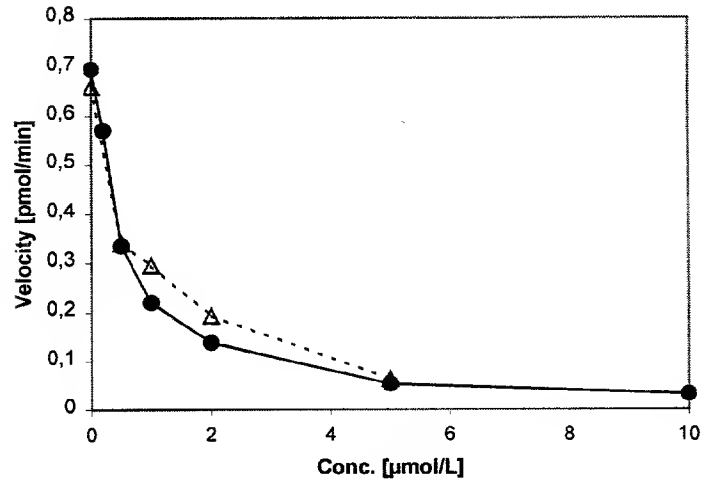


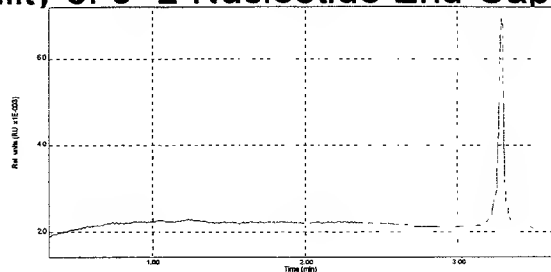
Figure 5.

Figure 5. Velocity of the enzymatic reaction: hydrolysis of ON 159 with BIPD as a function of the concentration of co-incubated ON 157 (open triangles) and ON 158 (closed circles).

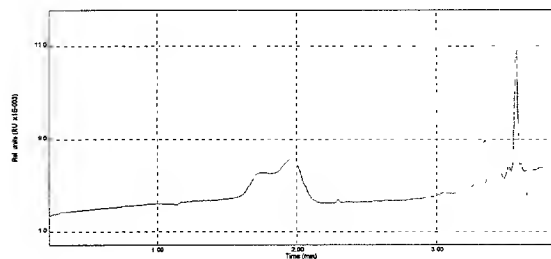
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Stability of 3'-L-Nucleotide End-Capped

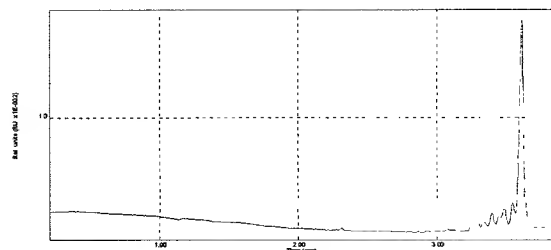
BalbC
 mice
 25 mg/kg
 dose
 i.v.



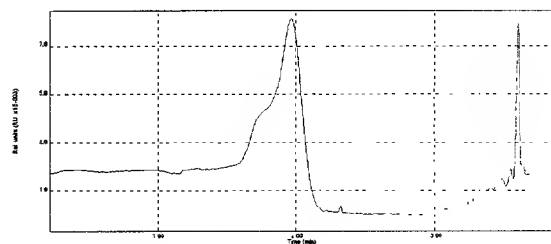
Starting Material



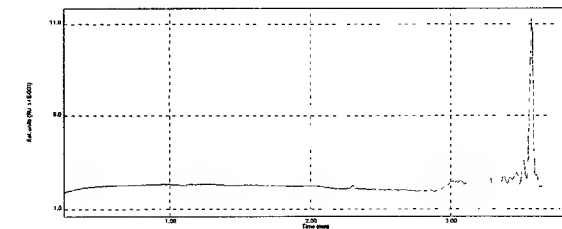
Liver @ 1hr



Kidney @ 1
 hr



Spleen @ 1
 hr



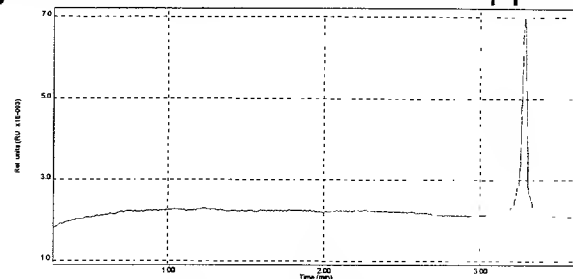
Lung @
 1 hr

Figure 6

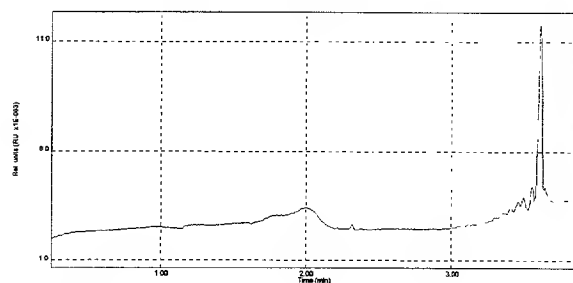
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Stability of 3'-L-Nucleotide End-Capped

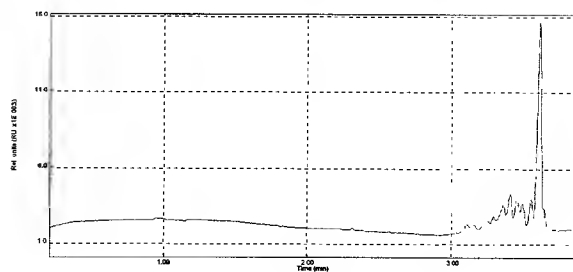
BalbC
mice
25 mg/kg
dose
i.v.



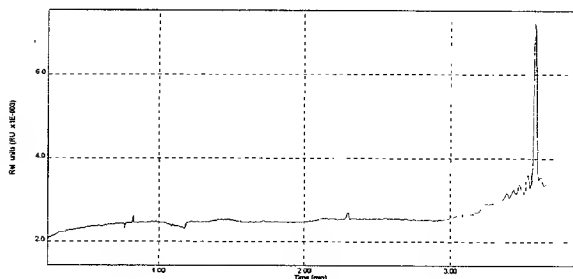
Starting Material



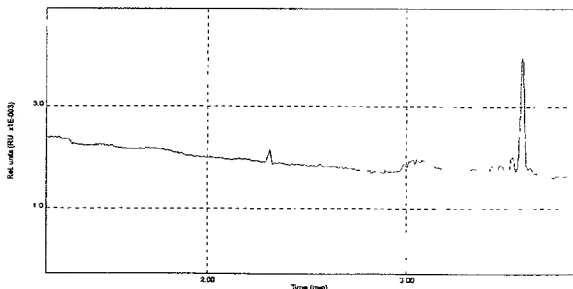
Liver @ 24
hr



Kidney @ 24
hr



Spleen @ 24 hr



Lung @ 24 hr

Figure 7